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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/137,198	08/20/1998	NORMAN J. BEAMISH	ROKWELL.039A	2615

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EXAMINER

KUMAR, PANKAJ

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 08/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/137,198

Applicant(s)

BEAMISH ET AL.

Examiner

Pankaj Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/26/2003 have been fully considered but they are not persuasive.
2. Applicant argues the Sumner does not teach the claimed mode selection circuit since element 126 is coupled to power adjusters and not to an encoder. This is respectfully traversed. The claim does not say that mode selection circuit has to be coupled to an encoder although, in this case, 126 is coupled to the encoder via other components. Second, the claim says that the mode selection is coupled to the DSSS transmission portion and FHSS transmission portion and, in the reference, 126 is coupled to these portions.
3. Applicant also argues that the power hopping sequence generator 126 of Sumner does not selectively activate said direct sequence spread spectrum portion since the encoder 102 is always active and Sumner uses DSSS with a predetermined power hopping sequence applied on several frequencies. This is respectfully traversed. The encoder may always be active but when the power is changing due to the power hopping sequence generator 126, power hopping sequence generator 126 is selectively activating the DSSS portion since it can choose to adjust the DSSS power to 0 which has the effect of no selection or it can choose so other value which has the effect of selectively activating to various degrees.
4. Applicant also argues that Sumner does not teach DSSS and FHSS since it only teaches PHDSSS. This is respectfully traversed since based on the power levels, PHDSSS mode is designed to also become a DSSS mode and a FHSS mode. Determining an optimal value for the power requires routine skill in the art.

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5. Applicant also argues that for Sumner to teach DSSS and FHSS instead of PHDSSS, it would go against Sumner's teaching of solving the near far problem while retaining the ability to communicate in the presence of wideband noise. This is respectfully traversed. Sumner wants to "produce a direct sequence spread spectrum (DSSS) signal" col. 2 lines 18-19. Sumner also wants to solve the near far problem as stated in col. 2 lines 8-9 "... what is needed is a transmission method and apparatus than can eliminate the near-far problem ..." and so Sumner teaches in col. 1 lines 38-40 that "Frequency hopped spread spectrum (FHSS) transmission is a technique for solving the near-far problem." Sumner also wants to solve the problem of communicating in the presence of wideband noise caused by a DSSS signal and thus Sumner chooses to power hop the DSSS signal in order to decrease the wideband noise. Hence Sumner teaches DSSS, FHSS, and PHDSSS. Applicant's argument that it is only teaching PHDSSS is inaccurate. Hence, PHDSSS and FHSS both solve the near far problem. Also, applicant's claims do not mention solving the near far problem or the wideband noise problem and thus there is no requirement that a reference like Sumner must teach resolving the near far problem or wideband noise problem. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Also, by Sumner teaching PHDSSS, it is teaching DSSS as the name implies since DSSS is part of PHDSSS. By Sumner hopping the power for different frequencies, it is also teaching frequency

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hopping since power for frequency F1 at time T1 can be 0 while power for frequency F2 at time T1 can be high, and then at time T2, power for frequency F1 at time T2 can be high while power for frequency F2 at time T2 can be 0. Thus, power hopping solves the near far problem in Sumner but this same power hopping results in applicant's claimed FHSS. The test for obviousness is not whether the features of the reference may be bodily incorporated into the other to produce the claimed subject matter but simply what the references make obvious to one of ordinary skill in the art (In re Bozek, 163 USPQ 545; In re Richman, 165 USPQ 509; In re Beckum, 169 USPQ 47; In re Sneed, 218 USPQ 385). Also, it is not necessary that the references actually suggest, expressly or in so many words, the changes or improvements that applicant has made. The test for combine references is what the references as a whole would have suggested to one of ordinary skill in the art (In re Sheckler, 168 USPQ 716; In re McLaughlin 170 USPQ 209; In re Young, 159 USPQ 725).

6. Applicant also argues that Beard's statement does not mean that FHSS is transmitted at a higher rate than DSSS. This is respectfully traversed. Beard USPN 6,434,187 teaches in paragraph 7: "FHSS typically enables high data rates to be achieved without requiring the high-speed logic that an equivalent DSSS system would require." This means that without any special enhancement of a DSSS system or an FHSS system, FHSS typically enables a higher data rate than an equivalent DSSS system. The motivation to combine Sumner with Beard comes through efficiency. It is inherent for a higher data rate system to be more efficient since it can process more data in a given amount of time.

7. Applicant also argues that hopping sequence generator of Sumner is not selectively coupled to the frequency generator since the hopping sequence generator is always used. This is

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respectfully traversed. The power hopping sequence generator may always be used but when it changes its value P_n to adjust the power, it is selectively coupling since it can choose to adjust the power to 0 which has the effect of no coupling or it can choose so other value which has the effect of coupling to various degrees.

8. Applicant also argues that Sumner does not appear to have any mechanism for coupling either a DSSS transmitter means or a FHSS transmitter means. This is respectfully traversed. The components and the connections between the components provide the coupling for the DSSS transmitter means and a FHSS transmitter means.

9. Applicant also argues that if P_1 is high and others are low then this is perhaps a DSSS signal but FHSS could never be sent since the spreading code generator provides a DSSS signal as the input to the radio signal generator 104 and this provides a PHDSSS signal and not an FHSS signal. Thus the applicant agrees that Sumner teaches DSSS. The applicant's argument about Sumner not teaching an FHSS signal is respectfully traversed. Since power for frequency F_1 can be low at time 1 and high at time 2 and power for frequency F_2 can be low at time 2 and high at time 1, Sumner teaches frequency hopping (FH). The output of 110, which is what 122 works on is a spread spectrum (SS) signal. Thus, Sumner teaches FHSS.

10. It is noted that the features upon which applicant relies for its figures are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

Response to Amendment

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-12, 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumner in view of Beard USPN 6,434,187. See prior action for details.

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sumner in view of Beard USPN 6,434,187 and further in view of Griffis USPN 4470070. See prior action for details.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

15. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Thurs and Fri after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (703) 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

PK
August 1, 2003



DON N. VO
PRIMARY EXAMINER